

REMARKS

Applicant respectfully requests consideration of the subject application. This Amendment and Response is submitted in response to the Office Action mailed April 12, 2007. Claims 13-32 are pending. No amendments to the claims have been made. No new matter has been added to the claims.

35 U.S.C. § 102 Rejections

The Examiner has rejected claims 13-32 under 35 U.S.C. § 102(e) as being anticipated by Afshari (U.S. Pat. 6,577,962).

The invention as claimed in claims 13 to 26, and as described in detail in the current specification, is a system for analyzing energy usage on an energy supply network which includes a number of energy sources supplying energy to the network, and a number of energy consumers connected to the network. The invention is particularly concerned with the problems faced by energy retailers, i.e. retailers who make contracts to purchase energy from the producers, and then sell the energy to the consumers. See the introduction to the current specification, page 2 line 24 to page 3 line 17.

US 6,577,962 (Afshari) is concerned with forecasting energy usage load for a consumer in the form of a facility, so that the facility can better manage energy usage and control costs (column 1, lines 7 to 23). This is a totally different problem from that faced by a supplier such as an energy retailer, which does not want to manage energy usage, and indeed will profit more from higher energy usage. The energy retailer needs to make contracts with energy producers that will match the energy usage, and needs to be able to hedge capacity from retailers. In Afshari, the consumer only pays for the energy it uses, and the intention is to reduce that. In Afshari the consumer does not make a contract

with an energy supplier (whether retailer or producer) for a particular quantity of energy, and does not make a financial loss if the energy actually consumed is less than or more than such a quantity.

Indeed, Afshari - column 1 lines 38 to 45 - specifically refers to the differences between the needs of consumer sites, where site level forecasting is required - and load forecasting systems used by suppliers.

The present invention provides a parameter that the energy retailers (and producers) can use when determining what contracts to make. The system involves storing historical energy usage across an entire network for an extended period. Current energy usage across the network is monitored, and the system (i) compares current total energy usage for a particular time in a year with a standard total energy usage for that time in a year, based on historical energy usage; and (ii) generates an index which indicates the difference between the current total energy usage for that time in a year and the standard energy usage for that time in a year. The index represents the difference between the actual current energy usage for a particular time in a year, and the (average) historical energy usage for that time in the year.

The system in Afshari does not show the elements of the invention as claimed. There is no suggestion in Afshari that for any particular point in time, there is historical energy usage data for the corresponding point in time in a previous year. Throughout, Afshari refers to storing "four to six months of load and weather data". Thus, in June of a particular year, the system may be able to analyze historical data from the winter months of December to February and from the spring months of March to May. The system cannot analyze historical data from June in the preceding year, or the year before that, or in any previous years. The use of historical data for the same time of year in one or more preceding years is a requirement of the present invention.

Afshari is a system for forecasting energy usage using various parameters. The present invention as claimed creates an index representing a comparison

between current energy usage at a particular point in time, with historical actual energy usage in that point in time based on actual figures from previous years.

In Afshari, the energy consumption of the facility is forecast. In making the forecast, historical data may be used. In particular, initial parameters for the calculation are calculated from historical load and weather data over a four to six month period (column 5 lines 20 to 29). Alternatively, the initial parameters may be estimated by comparison with parameters for similar facilities (column 5, lines 30 to 39) or by looking at the actual energy usage and characteristics of the facility building. Weather forecast data may be obtained, and a previous day's forecast profile (column 5, lines 60 to 64).

There will then be a forecast energy usage profile for a particular day, using the parameters in a model. Subsequently, the actual energy usage and temperature readings for that day are obtained. This data is then used to adjust the model's parameters so as to make the forecast profile match more closely the actual data, thus refining the model's parameters in the hope that future forecasts will be more accurate (column 6, lines 39 to 43).

Thus the purpose of the longer term historical data (going back 4 to 6 months) is to assist in setting up the original parameters for the model. Recent historical data, such as the data for the previous day) may be used. The forecast produced by the model is compared with actual measured data, and the parameters for the model are refined further.

The present invention is not concerned with creating a forecasting model as such. The present invention is concerned with creating an index which indicates the difference between actual energy usage at a particular point in time, and historical energy usage at that point of time in one or more preceding years.

Nowhere in Afshari is this suggested. In Afshari the actual energy usage at a particular point in time is not compared with historical data for that point in time. Instead, in Afshari, the actual energy usage at a particular point in time is compared with the forecast energy usage at that point time, to improve the accuracy of future forecasts.

In summary, as claimed in the present invention, actual energy usage at a particular point in time is compared with *historical* energy usage for that point in time. In Afshari, actual energy usage at a particular point in time is compared with *forecast* energy usage for that point in time. The two systems are completely different, one comparing two sets of real measured data, and one comparing real measured data with forecast data.

Thus, Afshari does not disclose storing and using historical data from one or more previous years, does not compare current energy usage with historical energy usage, and does not calculate an index indicating the difference between current energy usage and historical energy usage. Afshari is a system for use by a consumer facility wishing to monitor and reduce energy usage. The present invention is not for use by consumers, but by energy retailers and / or producers, for use in setting up supply contracts. claim 13 is neither anticipated by nor obvious over the disclosure in Afshari, and is allowable.

As claims 14 to 26 are dependent on claim directly or indirectly, they are also allowable. However, the Examiner's rejections of some of these claims will also be addressed.

With respect to claim 14, Afshari does not disclose use of average data over a number of years. It uses historical data over 4 to 6 months.

With respect to claim 16, Afshari does not disclose a rolling period. It uses fixed periods of days or hours in a day.

With respect to claim 17, Afshari does not disclose a rolling period and does not disclose combining data in the manner claimed from two fixed periods when the rolling period straddles those fixed periods.

With respect to claims 18 to 22, Afshari does not disclose anything at all about how the actual energy usage is monitored, and is irrelevant to the subject matter of these claims.

With respect to claim 23, Afshari does not disclose an arrangement in which there are producers who sell energy to the network and retailers who sell energy to the consumer. It is self-evident that somebody produces energy and sells it to the consumer facility, but Afshari is not concerned with the details of that - just how the consumer uses the energy.

With respect to claims 24, 25 and 26, Afshari does not disclose the production of an index, nor its use by retailers (distinct from the consumer - as clear from the preceding claim 23) and producers in contracting for energy.

With respect to claim 27, Afshari does not disclose (a) a system for reducing the consequences of imbalances in an energy network in which energy retailers contract for the supply of energy from energy producers; (b) using a commonly applicable index by producers and retailers to give an indication of the degree of imbalance on the network; and (c) using the index so that retailers and producers can contract for production, and retailers can hedge capacity from producers, in such a way as to assist in physically balancing the network.

With respect to claim 28, Afshari does not disclose anything relating to traded options.

With respect to claim 29, Afshari does not disclose these features, as discussed in relation to claim 13.

With respect to claim 30, Afshari does not disclose a rolling period of time.

With respect to claims 31 and 32, Afshari does not disclose anything at all about collecting data from meters and aggregating the data.

It is therefore apparent that all of claims 13 to 32 are allowable as the Examiner has referred to no prior art that discloses the features set out in these claims or would render such features obvious.

Applicant, accordingly, respectfully requests withdrawal of the rejections of claims 13-32 under 35 U.S.C. § 102(e) as being anticipated by Afshari.


Applicant respectfully submits that the present application is in condition for allowance. If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call Louis Tran at (408) 720-8300.

Please charge any shortages and credit any overages to Deposit Account No. 02-2666. Any necessary extension of time for response not already requested is hereby requested. Please charge any corresponding fee to Deposit Account No. 02-2666.

Respectfully submitted,

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